

SYLLABUS (revised 9.28.15)

GRADUATE SURVEY OF NEMATOLOGY

3 credits

NEM 5004C

Spring 2016

Classroom: Distance Education; Online

QUOTE: *"In short, if all the matter in the universe except the nematodes were swept away, our world would still be dimly recognizable, and if, as disembodied spirits, we could then investigate it, we should find its mountains, hills, vales, rivers, lakes, and oceans represented by a film of nematodes."* Nathan Cobb 1915

INSTRUCTOR:

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WHY TAKE THIS COURSE

Nematodes are the most numerous multi-cellular animals on earth. They are present everywhere ranging from the coldest deserts in Antarctica to the tallest mountains and deepest ocean sediments. They are incredibly diverse. For instance, a handful of soil can contain hundreds of species of nematodes. Some nematodes play a role in ecosystem processes like decomposition, nutrient mineralization, or plant parasitism. Many are parasites of most species of invertebrate and vertebrate animals, including humans. In other words, nematodes are everywhere! Find out more about the worms that you tread upon every day.

ABOUT THE COURSE

This is a distance education (DE) course offered via the University of Florida E-learning system (Sakai) at <https://elearning2.courses.ufl.edu>. The class materials are delivered via narrated Power-point lectures presented by Dr. Giblin-Davis. The Power-Point lectures, written transcripts for each lecture, instructive and educational videos, a virtual microscope for exploring nematodes and their relatives and their feeding behavior and morphology (developed by Drs. Jim Baldwin and Paul De Ley at the University of California at Riverside), and readings are organized into 13 lesson units that are available online through the University of Florida E-learning system for the class. In accordance with the copyright law of the United States (Title 17, United States Code) none of the materials in the class can be "used for any purpose other than private study, scholarship, or research".

NO REQUIRED TEXTBOOK. Because Carl Zimmer's "Parasite Rex: Inside the bizarre world of nature's most dangerous creatures" is cited heavily for several lectures, it is available to be checked out from the Department of Entomology and Nematology (for on-campus students only) on a first come, first served basis. The book can also be purchased used or new through Amazon.com (<http://www.amazon.com/Parasite-Rex-Bizarre-Dangerous-Creatures/dp/074320011X>) for between \$4-13 and is available for Kindle download for about \$11. The book is excellent, but not required reading. Those that check the book out must return it before the end of the class in order to receive a final grade. Required and recommended readings are part of the lesson and supplied as pdfs.

Homework (Quizzes), a mid-term and final exam, additional readings, discussions, correspondence, and term project submission also occur via the UF E-learning system (Sakai) <http://lss.at.ufl.edu/>. **There are open book quizzes due for each major lecture section, unless otherwise noted and this class requires a completed term project before the end of the semester.**

LEARNING OUTCOMES

By the end of this course, you will be familiar with the basics of nematology. You will discover:

- How nematodes are related to other worm-like invertebrates
- How they look
- How they function
- Where they live
- How they are classified
- Their often complex life histories
- The varied and critical roles that they play in ecology and our world
- Aspects of the management of parasitic species

- History of their discovery

This class will peak your curiosity about nematodes and prepare you for advanced nematology courses or classes in allied fields such as entomology, plant pathology, parasitology, or zoology.

COURSE OUTLINE

Week	Date	Activity	Assignment
1	Jan 5 2016	Sign-into e-learning (Sakai), and begin Module and Lecture 1. Introduction to invertebrates	Quiz 1
2	Jan 11 2016	(Module and Lecture 1 continued)	Quiz 1 (continued) Due 10 AM on 1/18/16
3	Jan 18 2016	Module and Lecture 2. Nematode Ecology	Quiz 2 Due 10 AM on 1/25/16
4	Jan 25 2016	Module and Lecture 3. Nematode Morphology & Function (1)	Quiz 3 Due 10 AM on 2/01/16
5	Feb 01 2016	Module and Lecture 4. Nematode Morphology & Function (2)	Quiz 4 Due 10 AM on 2/08/16
6	Feb 08 2016	Module and Lecture 5. Nematode Morphology & Function (3)	Quiz 5 Due 10 AM on 2/15/16
7	Feb 15 2016	Module and Lecture 6. History & Nematode Survival	Quiz 6 Due 10 AM on 2/22/16
8	Feb 22 2016	MIDTERM EXAM Module and Lecture 7. Classification	MIDTERM Start Quiz 7
9	Feb 29 2016	Spring Break (Feb 27-Mar 5) Module and Lecture 8. Nematode Symbiotic Associations	
10	March 07 2016	Finish Modules and Lectures 7 & 8	Finish Quiz 7 Due 10 AM on 3/14/16 (no quiz for Lecture 8)
11	March 14 2016	Module and Lecture 9. Nematode Associates/Parasites of Invertebrates	Quiz 8 Due 10 AM on 3/21/16
12	March 21 2016	Module and Lecture 10. Nematode Parasites of Vertebrates	Quiz 9 Due 10 AM on 3/28/16
13	March 28 2016	Module and Lecture 11. Nematode Plant Parasites	Quiz 10 Due 10 AM on 4/04/16
14	April 04 2016	Module and Lecture 12 Control of Nematode Plant Parasites	Quiz 11 Due 10 AM on 4/11/16
15	April 11 2015	Module and Lecture 13 <i>Caenorhabditis</i> and the Nobel Prize	REVIEW Project due 4/20/16
16	April 20-27 2016	FINAL EXAM	

LEARNING MODULES AND WEEKLY LESSONS

In the “**Lessons**” section of Sakai e-learning (on the left) you will find the detailed organization of this course. It is composed of thirteen lesson modules, each containing the specific learning materials for that module. In addition to the; 1) narrated powerpoint lecture, 2) pdf of the transcript of the lecture, and 3) reading materials for each module, there are sometimes other learning materials such as videos, or other items or activities to help you learn the content and independently explore the information and ideas presented. In addition, there are non-cumulative quizzes for each module, unless noted that are located in the “**assessments**” section (on the left bar) (see above for submission deadlines). Also, a midterm and final exam which summarize your learning for pre-determined sets of modules are given (see above).

PROJECT

The project is worth 20% of your grade and is due before the final exam on April 20, 2016 at the end of the class. It can be a polished, well-written draft of your Nematology-related thesis proposal with an accompanying narrated PowerPoint presentation, or if you are a more education-based graduate student, it can be a plan of work for a teaching unit on nematodes for a particular level of K-12 student education with an accompanying narrated PowerPoint presentation or Youtube video in the style of Paul Andersen (see <https://www.youtube.com/watch?v=qySegNxtiNg>; How to Make an Educational Screencast (Mac)). If you are more extension oriented, it can be the development of a featured creature article on a particular nematode or group of nematodes <http://entnemdept.ufl.edu/creatures/> http://entnemdept.ufl.edu/creatures/nematode/entomopathogenic_nematode.htm http://entnemdept.ufl.edu/creatures/nematode/red_ring_nematode.htm with an accompanying narrated PowerPoint presentation or YouTube video (see above). Others may want to try their hand at narrated PowerPoint presentations with a written transcript for a learning module for the class. The following are possible topics for narrated PowerPoint presentations (However, I am open to good student ideas).

Go to Wormbook and pick a section that sounds interesting to you and then develop one or more chapters into a presentation appropriate for upper division and graduate students. Make the narrated PowerPoint as straight forward and interesting as possible.

<http://www.wormbook.org/>

For example, you could go to David Fitch’s introduction on ecology and evolution and deal with the issue of whether nematodes are really part of a molting clade. http://www.wormbook.org/chapters/www_intronematodeevolecol/intronemevolecol.html

Or you could go to the Genetics and genomics section and do a ppt on one of the organisms where the genome has been done, e.g.,

http://www.wormbook.org/chapters/www_genomesTrichinella/genomesTrichinella.html

http://www.wormbook.org/chapters/www_genomesHbacteriophora/genomesHbacteriophora.html

GRADING NEM 5004C

Assignment	% of Grade
Homework	50
Term Project	20
Midterm	15
Final	15

Scale	Grade
93-100%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
63-66%	D
60-62%	D-
59% or less	E

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Absences and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<http://graduateschool.ufl.edu/files/handbook.pdf>

TECHNOLOGY REQUIREMENTS

Access to and on-going use of a computer is required for all students to successfully complete their UF degree programs. Competency in the basic use of a computer is expected for students in this course. Class participation will require consistent access to the Internet. The complete official UF policy on the student computer requirement is found at:

<http://www.it.ufl.edu/policies/student-computing-requirements/>

UF POLICIES

University Policy on Accommodating Students with Disabilities: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

University Policy on Academic Misconduct: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

<http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

GETTING HELP

For issues with technical difficulties for E-learning in Sakai, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

** Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

FREQUENTLY ASKED QUESTIONS

1. How do I access the online learning management system used for this course?

This course is delivered in the UF Sakai e-learning course platform. You will need a Gatorlink account to log on to E-Learning/Sakai. To log on to E-Learning/Sakai, go to at <http://lss.at.ufl.edu/> Click on the hyperlink “E-Learning” and “Logging in with Gatorlink.” Click continue and enter your Gatorlink ID and password. You will then be taken to the “My E-Learning” Homepage.” From here, you can easily access the course website by clicking on the appropriate hyperlink.

2. Where do I acquire the required texts and instructional materials for this course?

All course materials (book, activities, and any other materials you may need) can be found within the online course platform. However, you are expected to use the Internet and other resources to explore and learn information beyond the course materials.

3. Do I have to have Internet access at home?

You are strongly encouraged to have reliable Internet access at home. The university also has many student computer labs available to students who wish to use them.

4. What computer programs will I need to use in this course?

Adobe Acrobat reader is a free software program required to view and print the lecture notes and other resources (all in the PDF format). To download the free reader go to: <http://get.adobe.com/reader/>

PowerPoint is part of Microsoft office and is required for viewing and hearing the narrated PPT lectures for each module. A free PowerPoint reader is available online at <http://www.microsoft.com/download/en/details.aspx?id=6>. If you have a MAC, you will need to make sure that you have a compatible Office Suite in order to have access to the lectures for the class. Office 365 ProPlus is available for free download for **Microsoft Office applications for Windows and Macs** at <http://www.it.ufl.edu/gatorcloud/free-office-365-downloads/>

See <https://software.ufl.edu/student-agreements/> for more details or call the help desk for more information.

E-Learning Sakai is a centrally supported course management system at UF (until May 9, 2015). It is the online source for the majority of your learning resources and assignments in this course. For a tutorial regarding E-Learning Sakai functionality, go to https://lss.at.ufl.edu/sakai-training/student_index.shtml

Turn-It-In is a widely recognized and trusted resource for maintaining academic integrity and honesty. It has been adopted by UF for use by faculty and students. To download the Student Manual go to: <https://lss.at.ufl.edu/help/Turnitin>

Word Processing is a fundamental tool for all learning in higher education. There are numerous programs available, with the most common being Microsoft Word in MS Office. You may be required to submit word processed documents during this course. It is recommended to save these files in the .doc or .rtf format which can be easily opened by others in the course.

Other Programs such as **Quicktime** viewer may be required for the viewing of items such as the video clips in the **Virtual Microscope or some of the videos**. A free version of **Quicktime 7** is available at <http://www.apple.com/quicktime/download/>. You may also need to train your computer to open **Quicktime** videos as default files because Windows media player may be set as the default reader and it cannot read these files.

5. Where do I get help with computer problems and other technical help?

The UF Computing Help Desk is available by phone or email at: (352) 392-HELP (4357) and helpdesk@ufl.edu. The hours of operation are: Monday-Thursday: 7:30am-10:00pm, Friday: 7:30am-5:00pm and Weekends: 12:00pm-6:00pm

6. What is the University policy on software use?

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

7. What if I need special accommodations to take the course?

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office

will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

8. How long will I have to wait for a response from the instructor to my e-mail?

I will usually respond to e-mails within 48 hours, if not sooner.

9. What will help me succeed in this course?

* **Strong discipline and desire to succeed.** You'll need to login to class often during the typical week, motivating yourself to meet the requirements for success. Start early with assignments and quizzes and don't wait to the last moment. This class is designed to take you through the material and improve your literacy in general Nematology. However, you must spend some time and do the work to achieve that goal.

* **Ability to work well independently.** You'll develop the support of fellow learners all taking the same coursework together, but it will be different than a typical classroom environment. If you work well independently, your chance of success is higher.

* **Computer savvy.** If you're not familiar with the Internet and e-mail communication, I recommend that you take a computer enrichment class prior to enrolling in this course. I assume that you know how to access and send data on the Internet.

10. Where can I find student counseling, career, and mental health resources?

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

□ *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/*

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Training Programs
Community Provider Database

- *Career Resource Center*, First Floor JWRU, 392-1601, www.crc.ufl.edu/
- *Student Mental Health Services*, Rm. 245 Student Health Care Center, (352) 392-1171 www.counseling.ufl.edu/cwc/
 - * Alcohol and Substance Abuse Program (ASAP)
 - * Attention Deficit Hyperactivity Disorder (ADHD)
 - * Center for Sexual Assault / Abuse Recovery & Education (CARE)
 - * Eating Disorders Program
 - * Employee Assistance Program
 - * Suicide Prevention Program

11. *What if I have a complaint?*

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://distance.ufl.edu/student-complaints> for more details.

DISCLAIMER

This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected